Review of Plant Pathology

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CAB INTERNATIONAL (CABI), formerly the Commonwealth Agricultural Bureaux, is a cooperative not-for-profit organization owned, administered and financed by member governments. It was established in 1928, currently has 29 members, and has the status and privileges of an international organization in the UK. A new treaty-level constitution, giving CABI the status of an Inter-Governmental Organization, is in the process of ratification.

CABI's organizational structure comprises the Review Conference of member governments, which meets every five years; the Executive Council, with one representative from each member government, which meets four times per year; and the Directorate, including CABI Headquarters and its 14 Institutes and Bureaux. The Director General is the chief executive, controlling the 375 staff, two thirds of whom are at managerial or professional level, through three Directors, for Information, Scientific and Administrative Services.

The organization exists to provide information, scientific and development services for agriculture and allied disciplines throughout the world.

INFORMATION SERVICES

The chief function of the Information Services is to provide ready access to published information on research in agriculture and allied disciplines, including rural development.

Over 100 scientists/linguists at CABI's Bureaux and Institutes scan the world literature, select the significant items, and prepare an informative abstract of each which is entered into the CAB ABSTRACTS database. With some 2 million records in the database since 1973, and 3 million more in printed journals back to 1930, the total archive provides a unique encyclopaedic resource of unsurpassed reliability and quality.

The CAB ABSTRACTS database is publicly accessible online from major international online vendors and from CABI. It is used to provide current awareness and retrospective information services in hard copy and machine-readable form. Chief among these are 46 printed abstract journals, which are taken by 10,000 subscribing organizations worldwide. New journals are started in response to changing users' needs or if sponsors guarantee the circulation. Users needing more specific information may select outputs that match their particular requirements, helped if necessary by CABI's subject experts; outputs are supplied as magnetic tape, computer printout, microfiche or floppy disk. The database is also available on optical disk (CD-ROM), a new technology ideally suited to developing countries. To complete the service, photocopies of original articles are provided on request through the CABI Library Services.

Text processing, database production and data retrieval are provided by CABI's in-house computer centre, which also offers these services to other organizations. The centre is already recognized as the focal point for online access to a portfolio of small bibliographic databases and databanks relevant to agriculture, medicine and development.

Other functions of the Information Services include compilation of specialized databanks and directories, publication of primary journals, authoritative reviews and books, and training in information transfer for librarians, documentalists and information specialists.

SCIENTIFIC SERVICES

The Scientific Services of CABI are provided by four Institutes. Three deal with the science of taxonomy and provide identification and related services; the fourth deals with biological control.

CAB International Institute of Entomology (CIE)

CIE provides an identification service for insects, mites and other arthropods, especially species that are of actual or potential important as pests, parasitoids, predators and pollinators or are otherwise relevant to agriculture, forestry or related subjects. Contract research is also undertaken in these fields. The Institute's taxonomists work in the British Museum (Natural History) where they have access to the Museum's 23 million reference specimens of insects and mites, an incomparable aid to authoritative identifications and research on arthropod classification.

CAB International Mycological Institute (CMI)

CMI is the largest centre for systematic mycology in the world and provides a service for the identification of filamentous fungi and plant-pathogenic bacteria. It has about 300,000 dried reference specimens, a culture collection of more than 12,500 isolates, an extensive library, a Biodeterioration and Industrial Services Laboratory, a Biochemical Laboratory, and a Plant Pathology Liaison Unit. The Institute provides a wide range of consultancy and contract services for plant pathologists and industry. It incorporates the UK National Collection of Fungus Cultures and the Biodeterioration Centre.

CAB International Institute of Parasitology (CIP)

CIP provides an identification service for plant-parasitic and entomophilic nematodes, and helminth parasites of animals and man. The reference collections contain over 65,000 specimens, and an extensive specialist library is maintained. The Tropical Plant Nematology Advisory and Research Unit provides practical advice on plant-parasitic nematodes and their control worldwide, and the Institute also houses the WHO Filarial Reference Collection.

CAB International Institute of Biological Control (CIBC)

CIBC provides information and advice on biological control, undertakes research and implementation of programmes on biological control of major pests and weeds, and participates in integrated pest management programmes in association with other agencies. It has its headquarters in the UK but operates also from stations at Delémont, Switzerland; Bangalore, India; Rawalpindi, Pakistan; Nairobi, Kenya; and Curepe, Trinidad, West Indies.

All four Institutes carry out research, and offer a wide range of training activities from postgraduate studentships to special training courses both in the UK and abroad.

DEVELOPMENT SERVICES

The Development Services provide a focus for CABI consulting activities.

The Development Services Group was established in 1986 to provide a sharper focus for CABI's consulting activities. It draws heavily on the unique scientific expertise and information resources available in the CABI Institutes and Bureaux, and its activities are backed by nearly sixty years of CABI involvement in science and world agriculture.

The Development Services offer practical advice and assistance on many pest-related or environmental problems in agriculture. Specific services include:

- project appraisal
- advice in a range of scientific disciplines
- research supervision
- research evaluation
- project implementation.

These services are offered in situations ranging from short-term individual consultancies to project components and major development projects. The current focus is on:

- integrated pest management programmes
- national crop protection services
- pest/disease identification and control
- crop-orientated pest and disease surveys.

One component of these activities that can be extended to any branch of agriculture or development is the provision of a comprehensive information service, involving expert review and analysis of all relevant literature.

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CAB International
Farnham Royal, Slough SL2 2BN, UK
Telephone: Farnham Common (02814) 2281
Telex: 847964 (COMAGG G) Cables: Comag Slough
Telecom Gold/International Dialcom: 84:CAU001

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Institutes

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Director: K.M. Harris DSc, DIP AgrSci, DTA

CAB International Mycological Institute, Ferry Lane, Kew, Richmond TW9 3AF
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CAB International Institute of Parasitology, 395A Hatfield Road, St. Albans, AL4 0XU, Herts.
Director: R.L.J. Muller BSc, PhD, FIBiol

CAB International Institute of Biological Control, Imperial College, Silwood Park, Ascot, Berks SL5 7PY
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M. Yaseen MSc, PhD (Entomologist-in-Charge)

European Station, 1 Chemin des Grillons, CH-2800, Delémont, Switzerland
K.P. Carl DNatSc ((Entomologist-in-Charge)

Indian Station, Post Bag 2484, Hebbal Agricultural Farm, P.O. Bangalore 560024, India
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Kenya Station, c/o Kenya Agricultural Research Institute, P.O. Box 30148, Nairobi, Kenya
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Plant Breeding & Genetics, Department of Applied Biology, Pembroke Street, Cambridge CB2 3DX
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Soils, Rothamsted Experimental Station, Harpenden, Herts. AL5 2JQ
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C·A·B INTERNATIONAL MYCOLOGICAL INSTITUTE

Kew, Richmond, Surrey TW9 3AF, UK

Director

Professor D. L. Hawksworth PhD., DSc., FLS., CBiol., FIBiol.

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P. Basu, BSc
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Review of plant pathology

Readers' Guide

The primary object of the *Review* is to provide a monthly survey of the more important recent world literature on seases of plants caused by fungi, bacteria, viruses, mycoplasma-like organisms and nonpathogenic factors. It aims at pplying sufficiently full abstracts to enable readers to keep themselves informed of the progress of current work and allow them to decide whether they require to see the original document. Photocopies of most of the papers abstracted n be supplied. An application form is printed in each number of the Review. To satisfy copyright regulations this form ould always be used when photocopies are requested.

Some 1400 serial publications, including other abstracting journals, are examined regularly. Many others, together ith miscellaneous publications and books, are also scanned. An effort is made to note all new data; previously pub-shed information, well known facts and popular articles may be omitted. Some background papers are noticed by very ief notices, and some of local or marginal interest by titles only. Taxonomic papers are listed in the Institute's half-early *Bibliography of Systematic Mycology*, which forms a useful supplement to the *Review*. New generic and specific mes of fungi are compiled in the *Index of Fungi*.

Back references to the *Review* (in square brackets) are given to link related publications and also to enable further tails to be traced quickly. References are also given to the Institute's *Distribution Maps of Plant Diseases* (as [CMI ap 1231) when the record is a new one for the map cited, or when more information on distribution is relevant.

When consulting an entry the reader should remember that the title is an integral part of the abstract and may include ta necessary for its full comprehension.

In a typical citation the name(s) of the author(s) are followed by the title of the paper in English. If the paper is written a language other than English, the English translation of the title is enclosed in square brackets. The title in the original nguage, if not English, follows, except for Arabic, Chinese, Japanese, Cyrillic character languages etc. Journal titles are ext given in unabbreviated form. The year of issue, in round brackets, the volume number, part number in round brackets, nd first and last page numbers of the article complete the basic citation.

Supplementary details given in square brackets include the language of the paper (a two-letter abbreviation with an itial capital; see page iv) and the language of any summary or summaries in languages other than that of the paper similar abbreviation without an initial capital); and there may also be included the number of references, plates, figures, aphs, maps, tables. The affiliation of the first author is also usually given in abbreviated form. Some commonly used bbreviations are listed on page iii.

Every effort is made to achieve consistency in the nomenclature of pathogens used in the *Review*. The names of fungi nd bacteria are kept in line with the International Codes of Botanical and Bacteriological Nomenclature and with current axonomic opinion. Preferred names are given, where necessary, in square brackets in the abstract and are used in the ubject index. Whenever the perfect state of a fungus is known and generally accepted the name applied to this state is sed, even if the paper abstracted refers only to the imperfect state (e.g. *Drechslera oryzae* is always referred to as the erfect state, *Cochliobolus miyabeanus*). Virus names are those given by the author or corrected for consistency in in-exing. Synonyms are listed in the Institute's publication, Plant Virus Names (*Phytopathological Paper* 9, 1968 and upplement 1, 1971).

The abstracts are arranged in a repeating series (indicated by page and section headings) composed of two main parts; ne general, the other diseases arranged by crops (see contents page). Whenever possible, papers appear under the host, n the order general papers, virus and mycoplasma diseases, fungal diseases, bacterial diseases, non-parasitic disorders. lowever, a paper on, for instance, tobacco mosaic virus, not referring to a specific host, would come under 'viruses and nycoplasma-like organisms' rather than 'tobacco'. The monthly contents list follows the same pattern. Cross references re given where appropriate at the beginning of a section. Thus abstracts on virus diseases in other sections are listed at ne beginning of the section on 'Viruses and mycoplasma-like organisms'.

The general index is primarily a host-parasite index with the entries analysed under hosts and repeated in less detail nder pathogens. Fungicides are indexed where possible under both the approved common or chemical name and, if tated, the proprietary name, and the pathogen against which they are used is indicated, together with the host.

There are in addition a number of special entries, including:

Apparatus
Bibliographies
Biological control
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Conferences
Crop loss
Economics of control
Electron microscopy
Fertilizers
Induced mutations
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Soil treatments
Spore dispersal
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Techniques

ABBREVIATIONS

Author's Affiliation

Acad.	Academy	Exp.	Experimental	Reg.	Regional
Agric.	Agricultural etc.	Fac.	Faculty	Res.	Research
Agron.	Agronomic etc.	Gov.	Government	Sch.	School
Ass.	Association	Inst.	Institute	Sci.	Scientific etc.
Biol.	Biological etc.	Lab.	Laboratory	Soc.	Society
Bot.	Botanical etc.	Org.	Organization	Sta.	Station
Cent.	Central	Path.	Pathological etc.	Tech.	Technical
Coll.	College	Pl.	Plant	Trop.	Tropical
Dep.	Department	Prot.	Protection	Univ.	University
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ACT, Australian Capital Territory; NSW, New South Wales; NT, Northern Territory; Qd., Queensland; S. Aust., Sou Australia; Tas., Tasmania; Vict., Victoria; W. Aust., Western Australia.

Canadian Provinces

Alta., Alberta; BC, British Columbia; Man., Manitoba; NB, New Brunswick; NS, Nova Scotia; Ont., Ontario; PEI, Prin Edward Island; Que., Quebec; Sask., Saskatchewan.

USA States

Ala., Alabama; Ariz., Arizona; Ark., Arkansas; Calif., California; Colo., Colorado; Conn., Connecticut; Del., Delawa DC, District of Columbia; Fla., Florida; Ga., Georgia; Ill., Illinois; Ind., Indiana; Kans., Kansas; Ky., Kentucky; La., Lou iana; Me., Maine; Md., Maryland; Mass., Massachusetts; Mich., Michigan; Minn., Minnesota; Miss., Mississippi; Mo., Misso Mont., Montana; Neb., Nebraska; Nev., Nevada; N. Hamp., New Hampshire; NJ, New Jersey; N. Mex., New Mexico; N New York; N. Carol., North Carolina; N. Dak., North Dakota; Okla., Oklahoma; Ore., Oregon; Pa., Pennsylvania; Rhode Island; S. Carol., South Carolina; S. Dak., South Dakota; Tenn., Tennessee; Vt., Vermont; Va., Virginia; Was Washington; W. Va., West Virginia; Wis., Wisconsin; Wyo., Wyoming.

Languages

Ar, Arabic; Bg, Bulgarian; Ch, Chinese; Cr, Croat; Cs, Czech; Da, Danish; De, German; En, English; Ee, Estonian; Spanish; Fi, Finnish; Fr, French; Gr, Greek; Hu, Hungarian; It, Italian; Ja, Japanese; La, Latin; Lv, Latvian; Nl, Dutch Flemish; No, Norwegian; Pl, Polish; Pt, Portuguese; Ro, Rumanian; Ru, Russian; Sr, Serbian; Sh, Serbo-Croat; Sk, Slov Sv, Swedish; Tr, Turkish; Uk, Ukrainian; etc.

Organizations:

ADAS	Agricultural Development & Advisory Service
CSIRO	Commonwealth Scientific & Industrial Research Organization
DSIR	Department of Scientific & Industrial Research
EAAFRO	East African Agriculture & Forestry Research Organization
EPPO	European & Mediterranean Plant Protection Organization
FAO	Food & Agriculture Organization of the United Nations
IARI	Indian Agricultural Research Institute
INRA, Versailles	Station Centrale de Pathologie Végétale et Laboratoire de Phytopharmacie, Institut National Recherc Agronomiques, Versailles, France
IPO, Wageningen	Instituut voor Plantenziektenkundig Onderzoek, Wageningen
USDA	United States Department of Agriculture

In addition, a number of other easily understood abbreviations are used (e.g. sp., species). Initial letters may be u for a virus after its full name has appeared in an abstract. Units of measurement are abbreviated basically according the publication *Changing to the metric system* (HMSO, 1969). The international symbols for the commoner chem elements and a number of simple chemical formulae are also used.

C·A·B INTERNATIONAL

In keeping with its new international image, the Commonwealth Agricultural Bureaux has been renamed **C·A·B International**. This change was agreed by the 29 member countries at the Tenth Quinquennial Review Conference, held in London in September 1985. The Conference also agreed to a draft new Constitution, and this document is currently under ratification procedures by member governments.

The provision of information and scientific services in agriculture and related fields will remain the primary functions of C·A·B International. However, the organisation will also be aiming to provide a broader range of services and will be welcoming to membership other countries, including non-Commonwealth countries, which wish to join the traditional Commonwealth country membership.

The organization is controlled by an Executive Council composed of nominees of the various governments, including one for the United Kingdom Dependent Territories.

The work of C·A·B International is largely carried out through a number of Institutes and Bureaux, each dealing with a particular aspect of agricultural science. Enquiries on scientific matters should be sent to the Director Information Services or Director Scientific Services at Headquarters, or to the Director or Officer-in-Charge of the appropriate Institute or Bureau (see addresses below). Other enquiries should be sent to the Director General at Headquarters, or to Liaison Officers in member countries.

A list of Executive Council Members and Liaison Officers will be published in the next issue of this journal.

Headquarters
Farnham House, Farnham Royal, Slough SL2 3BN, UK
Tel: Farnham Common (02814) 2281 (Sales 2662) (Systems 5807)
Telex: 847964 COMAGG G
Telegrams: Comag, Slough
International Dialcom: 84: CAU001

Director General: Don Mentz BAgrSc, BEcon, DDA
Director, Information Services: J. R. Metcalfe MA, PhD, DIC, DTA
Director, Scientific Services: E. K. Woodford OBE, MSc, PhD, FIBiol
Director, Administrative Services: T. Martin FCA
Input Manager/Deputy Director, Information Services: C. P. Ogbourne BSc, PhD
Systems Manager: F. G. Jones
Marketing & Sales Manager: A. J. Woodcock
Manager, Administration & Personnel: L. D. Poole MBE

Institutes

Commonwealth Institute of Entomology, 56 Queen's Gate, London SW7 5JR. Tel: 01-584-0067/8
Director: K.M. Harris DSc, DIP AgrSci, DTA
Commonwealth Mycological Institute, Ferry Lane, Kew, Richmond TW9 3AF
Director: D.L. Hawksworth PhD, DSc, FLS, CBiol, FIBiol
Commonwealth Institute of Biological Control, Imperial College, Silwood Park, Ascot, Berks SL5 7PX.
Director: D.J. Greathead BSc, ARCS, PhD, DSc, FIBiol
Commonwealth Institute of Parasitology, 395A Hatfield Road, St. Albans, AL4 0XU, Herts.
Director: R.L.J. Muller BSc, PhD, FIBiol

Bureaux

Agricultural Economics, Dartington House, Little Clarendon St., Oxford OX1 2HH
Officer-in-Charge: Miss M.A. Bellamy BSc, DipAgricEcon, MIInfSci
Animal Breeding and Genetics, Animal Breeding Research Organization, The King's Building, West Mains Road, Edinburgh EH9 3JX
Director: J.D. Turton BSc, MRCVS, DTVM
Animal Health, Central Veterinary Laboratory, New Haw, Weybridge, KT15 3NB, Surrey
Director: R.M. Mack FRCVS
Dairy Science & Technology, Lane End House, Shinfield, Reading RG2 9BB
Director: E.J. Mann NDD, CDD
Forestry, Commonwealth Forestry Institute, South Parks Road, Oxford OX1 3RD
Director: W. Finlayson BSc
Horticulture & Plantation Crops, East Malling Research Station, Maidstone ME19 6BJ, Kent
Director: D.J. O'D. Bourke MA, DipAgr, FLS
Nutrition, Rowett Research Institute, Bucksburn, Aberdeen AB2 9SB
Officer-in-Charge: D.J. Fleming BSc, MSc, MIBiol
Pastures & Field Crops, Animal & Grasslands Research Institute, Hurley, Maidenhead SL6 5LR
Officer-in-Charge: R.J. Lewington PhD, MIInfSci
Plant Breeding & Genetics, Department of Applied Biology, Pembroke Street, Cambridge CB2 3DX
Director: Miss O. Holbek BSc
Soils, Rothamsted Experimental Station, Harpenden AL5 2JQ, Herts.
Director: B. Butters MSc, DipAgr, DTA, DIC, ARCS

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